



May 18<sup>th</sup> 2010

**WARRINGTON  
SCHOOL**

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## School Targets 2010

By comparing the total stanines achieved with the School's PAT maths results with the total stanine results for STAR reading has indicated our pupils are not achieving in their PATs Maths results to the same level they are in STAR reading. Similar issues also arose when comparing our Maori pupils in the same stanined data.

Although PAT and STAR reading was undertaken by pupils in years 3 and 4. The data we collated was felt to be significantly distorted by many of the pupil's inability to cope with formalised testing at this level – we are therefore focussing our efforts on pupils at the year 5-8 level and will continue to collect data from the year 3 and 4s from a variety of sources as well as PAT Maths and STAR.

	Year 5 – 4 pupils		Year 6 – 12 pupils		Year 7 – 7 pupils		Year 8 – 5 pupils	
	Reading	Maths	Reading	Maths	Reading	Maths	Reading	Maths
Stanine total score	23	19	79	71	45	38	34	28
Average stanine	5.8	4.8	6.5	5.9	6.4	5.4	6.8	5.6
Maori pupils total score	35	42	Maori pupils are performing below the average in reading and above the average in Mathematics					
Maori average stanine	5	7						
Total average stanine	6.4	5.6						

As a staff we felt there should be a greater correlation between the two results and aim:

**A. To improve the year 3-8 pupils abilities in mathematics as identified from school PAT results.**

**B. Improve the reading level of our Maori pupils identified in STAR reading test results.**

To assist in achieving these targets we will:

Closely analyse PAT test results looking for patterns of strengths and weaknesses.

Undertake in school professional development using the school's management unit to lead this.

Retest pupils in November and in the interim will research correlations between reading and maths abilities.

Use PAT Maths and STAR tests whilst also researching other assessment tools for year 3 and 4 pupils.

**December 15 2010**

## **Analysis of variance of assessment data 2010**

**Target - To improve the year 3-8 pupils abilities in mathematics by:**

### **1. Analysing PAT test results looking for patterns of strengths and weaknesses**

We looked at the data for any consistent patterns where a proportion of children getting wrong answers:

Year 8: place value, subtraction, division, proportion and ratios, volume, symmetry

Year 7: decimals, patterns, length, multiplication and division,

Year 6: decimals, volume, shapes, subtraction equations, proportions and ratios, patterns,

Year 5: addition and subtraction equations, proportions and ratios, probability

Year 4: multiplication and division, basic facts, money, subtraction, patterns

Overall areas seem to be: subtraction, division, proportions and ratios, decimals

## 2. Undertaking in school professional development using the school's management unit to lead this

Brenda undertook the responsibility of attending and reporting back on current mathematical thinking. This was shared at staff meetings and on the wiki. Created new documentation including lead teacher information, a mathematics curriculum statement and the NZ curriculum objectives. All viewable from the wiki.

## 3. Retesting pupils again in November

This was undertaken with many of our students improving a stanine in maths. Unfortunately the way that our results are shared to the BOT and parents with students working above, at or below doesn't display the precise movement of pupils. An example being students that have moved from stanine 5 to stanine 7 are still listed as achieving at their level.

All students who have been on the F2F programme have moved up a level from stanine 3 to 4 and some to 5. One student dropped a stanine in mathematics from a 6-5.

## 4. [Research the correlation between reading and mathematical abilities](#)

Correlation between our pupils mathematics results and those expected of a school of our size.

Our end of year results have 5 students achieving a stanine 9 in PAT maths and 6 stanine 9 in STAR reading, the average number of stanine 9 students for our class should be 2!

We also looked at the correlation between our pupils reading abilities related to books that have been issued from Blueskin Bay Library Book car. From the data collected it seems that some pupils who get few books out from the BB Library are actually very good readers – but every pupil who is classified as a poor reader gets few books out. Our students are achieving well above the standards set in the PAT Maths test and the STAR reading test.

Finally left brain/logical analytical thinkers and right brain/non-linear thinkers – there is a link with how students work. With those who are the linear more likely to achieve in maths.

	Year 5 – 4 pupils		Year 6 – 12 pupils		Year 7 – 7 pupils		Year 8 – 5 pupils	
	Reading	Maths	Reading	Maths	Reading	Maths	Reading	Maths
Stanine total score	23/20	19/26	79/89	71/84	45/44	38/44	34/32	28/32
Average stanine	5.8/5	4.8/6.5	6.5/7.4	5.9/7	6.4/5.5	5.4/5.5	6.8/6.4	5.6/6.4
Maori pupils total score	35/35	37/41	Maori pupils are performing below the average in reading and above the average in Mathematics					
Maori average stanine	5/5	5.2/5.8						
Total average stanine	6.4/6	5.6/6.3						

Term	Year 1 & 2						Year 3 & 4						Year 5 & 6						Year 7 & 8					
	Below		At		Above		Below		At		Above		Below		At		Above		Below		At		Above	
	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4
Reading	1	2	7	8	7	9	5	3	10	8	2	3	4	5	4	5	9	6	1	3	4	4	7	5
Writing	2	1	11	14	2	4	4	2	10	10	3	2	8	7	6	7	3	3	4	4	7	6	1	2
Maths	1	1	8	14	5	4	9	1	5	11	3	2	3	2	8	6	6	8	1	2	7	8	4	2

	Reading						Writing						Maths					
Term	Below		At		Above		Below		At		Above		Below		At		Above	
Maori Pupils	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4
		2	4		3				5		2				4		3	

## Analysis of variance

I believe we have achieved our goal in improve the maths of students within years 3-8 with every group improving their average stanine.

The ability to better manipulate data from the same space will be of great benefit next year with the establishment of our student management profile.

## Suggested target for 2011

To improve the writing of those students identified as not achieving at the start of 2011.

Analyse and evaluate assessment procedures and data.

Undertake professional development in writing and share back to the school and teachers.

Use management unit to analyse assessment data and to bring current writing ideas into school practice.